

CLAIMS

What is claimed is:

1. A method of assembling a roof module to an automotive vehicle,
comprising:

5 providing the roof module wherein the roof modules includes:

- a) a roof portion having at least one edge;
- b) a transparent panel having a bottom edge adapted for
attachment to a body of the automotive vehicle during assembly
of the automotive vehicle, and a top edge that is adhesively
secured to the roof portion adjacent the at least one edge of the
roof portion wherein the transparent panel is selected from the
group consisting of a windshield, a backlite, side glass and
combinations thereof; and

10 assembling the roof module to a body portion of an automotive vehicle.

15 2. A method as in claim 1 wherein the roof portion includes a roof panel
and a foam-in-place headliner.

20 3. A method as in claim 1 wherein the roof portion includes a roof rail
assembly.

25 4. A method as in claim 1 wherein the roof portion includes at least one
peripheral component selected from the group consisting of a wire harness, a global
positioning system, a temperature sensor, a speaker, a monitor, a sunroof package,
a moonroof package and a light.

30 5. A method as in claim 1 further comprising a second transparent panel
selected from the group consisting of a windshield and a backlite having a top edge
and a bottom edge wherein the top edge is secured to the roof portion adjacent a
second edge of the roof portion.

6. A method as in claim 1 wherein the transparent panel includes an
encapsulation covering at least a portion of one of the edges of the transparent
panel.

7. A method as in claim 1 wherein the roof portion includes at least one vehicle impact countermeasure selected from the group consisting of an air bag and a structural reinforcement.

8. A method as in claim 1 wherein the top edge of the transparent panel is adhesively secured to the roof portion with a urethane adhesive.

9. A method of assembling a roof module to an automotive vehicle, comprising:

providing the roof module wherein the roof module includes:

- a) a roof portion having a forward edge, a rearward edge, a pair of side edges and a pair of A-pillars extending from adjacent opposing corners of the roof portion; and
- b) a windshield having a top edge, a bottom edge and a pair of side edges wherein; (i) the top edge of the windshield is adhesively secured to the roof portion adjacent the forward edge of the roof portion and the side edges of the windshield are secured to the A-pillars; (ii) the bottom edge of the transparent panel is configured for attachment to a body portion of the automotive vehicle upon assembly of the roof module to the automotive vehicle; and (iii) the A-pillars and the body portion of the vehicle include corresponding mating structures for assisting in assembling the roof module to the body portion of the vehicle; and

assembling the roof module to the body portion of the vehicle by matingly fitting the mating structures of the A-pillars with the mating structures of the body portion and by adhesively securing the transparent panel to the body portion of the vehicle with a urethane adhesive.

10. A method as in claim 9 wherein a primer is utilized to assist the urethane adhesive in securing the transparent panel to the body portion.

11. A method as in claim 9 wherein the roof portion includes a roof rail assembly having structural foam disposed therein.

12. A method as in claim 9 wherein the roof portion includes at least one peripheral component selected from the group consisting of a wire harness, a global positioning system, a temperature sensor, a speaker, a monitor, a sunroof package, a moonroof package and a light.

13. A method as in claim 9 further comprising a second transparent panel selected from the group consisting of a windshield, a backlite having a top edge and a bottom edge wherein the top edge is secured to the roof portion adjacent a second edge of the roof portion.

14. A method as in claim 9 wherein the transparent panel includes an encapsulation covering at least a portion of one of the edges of the transparent panel.

15. A method as in claim 9 wherein the roof portion includes at least one vehicle impact countermeasure selected from the group consisting of an air bag and a structural reinforcement.

16. A method as in claim 9 wherein the top edge of the transparent panel is adhesively secured to the roof portion with a urethane adhesive.

17. A method of assembling a roof module to an automotive vehicle, comprising:

- a) providing a roof portion having a peripheral edge, two forward corner portions and two rearward corner portions and at least two intermediate side portions;
- b) providing a transparent panel having a top edge and a bottom edge, and being selected from the group consisting of a windshield, a backlite, side glass, and combinations thereof;

- c) adhesively securing the transparent panel to the roof portion adjacent the peripheral edge of the roof portion with a urethane adhesive for forming a roof module; and
- d) assembling the roof module to a body of an automotive vehicle.

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18. A method as in claim 17 further comprising securing a pair of opposing and spaced apart A-pillars to said roof portion extending from adjacent opposing corners of the roof portion wherein the transparent panel is a windshield with side edges secured to the A-pillars;

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19. A method as in claim 17 wherein the step of assembling the roof module to the body of the automotive vehicle includes connecting the roof portion of the vehicle to a pair of B-pillars and to a pair of C-pillars of the automotive vehicle body and includes connecting the bottom end of the transparent panel to the body using an adhesive.

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20. A method as in claim 17 wherein the roof module includes a second transparent panel selected from the group consisting of a windshield, a backlite having a top edge and a bottom edge wherein the top edge is secured to the roof portion adjacent a second edge of the roof portion.

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21. A method as in claim 17 wherein the roof module is assembled in a first designated area of an assembly plant and the roof module is assembled to the body portion in a second designated area of the assembly plant.

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